Defense Acquisition University

Critical Thinking for Effective Outcomes

Critical Thinking for Effective Outcomes

Defense Acquisition University

- **Concepts and Tools**
- **Practitioner:**
  - **CAPT Jamie Engdahl**, PM, Precision Strike Weapons
  - **COL Mike Sloane**, PM, Soldier, Sensors and Lasers
  - **Lt Col Jeffrey Hamblin**, Chief, F-15 Foreign Military Sales

Think.

Think. The first responsibility of the acquisition workforce is to think. We need to be true professionals who apply our education, training, and experience through analysis and creative, informed, thought to address our daily decisions. Our workforce should be encouraged by leaders to think and not to default automatically to a perceived "school solution" just because it is expected to be approved more easily.

Mr. Frank Kendall

The Optimal Program Structure *ATL Magazine, July 2012*

Think … don't default to "school solutions."

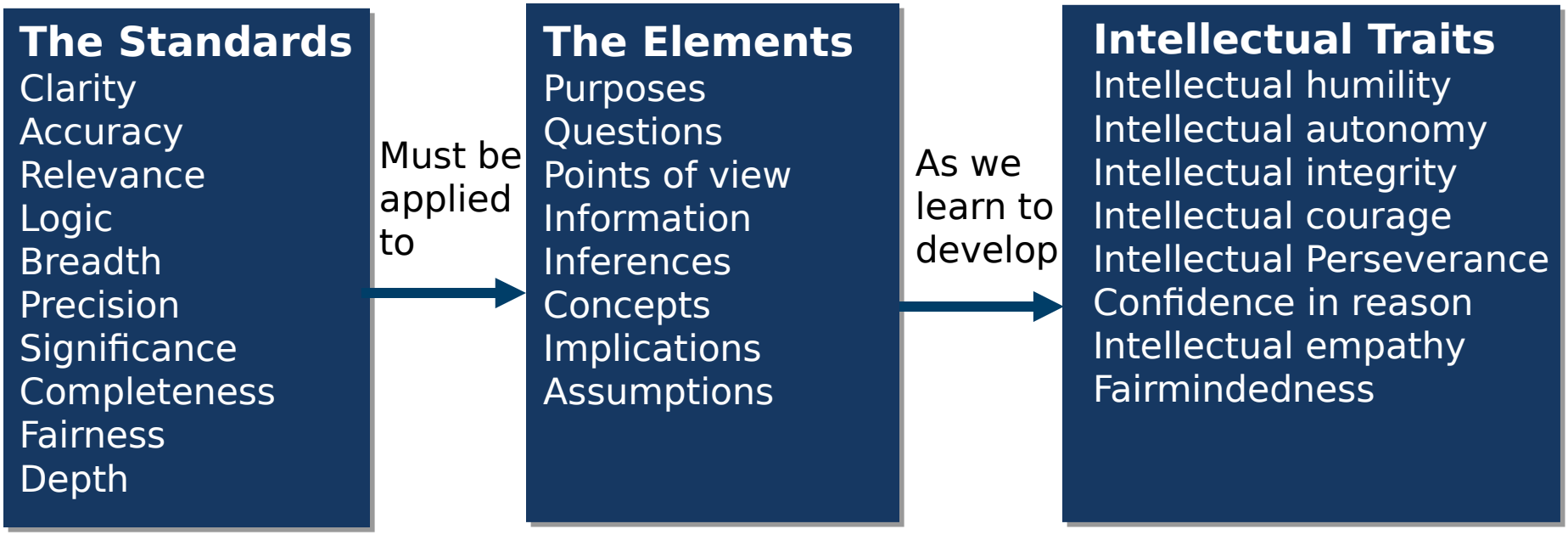
Critical Thinking—The art of analyzing and evaluating thinking with a view to improving it.
—Paul and Elder

Critical Thinking is NOT something you add to everything you do…

It is the way (attitude and skill) you do everything.

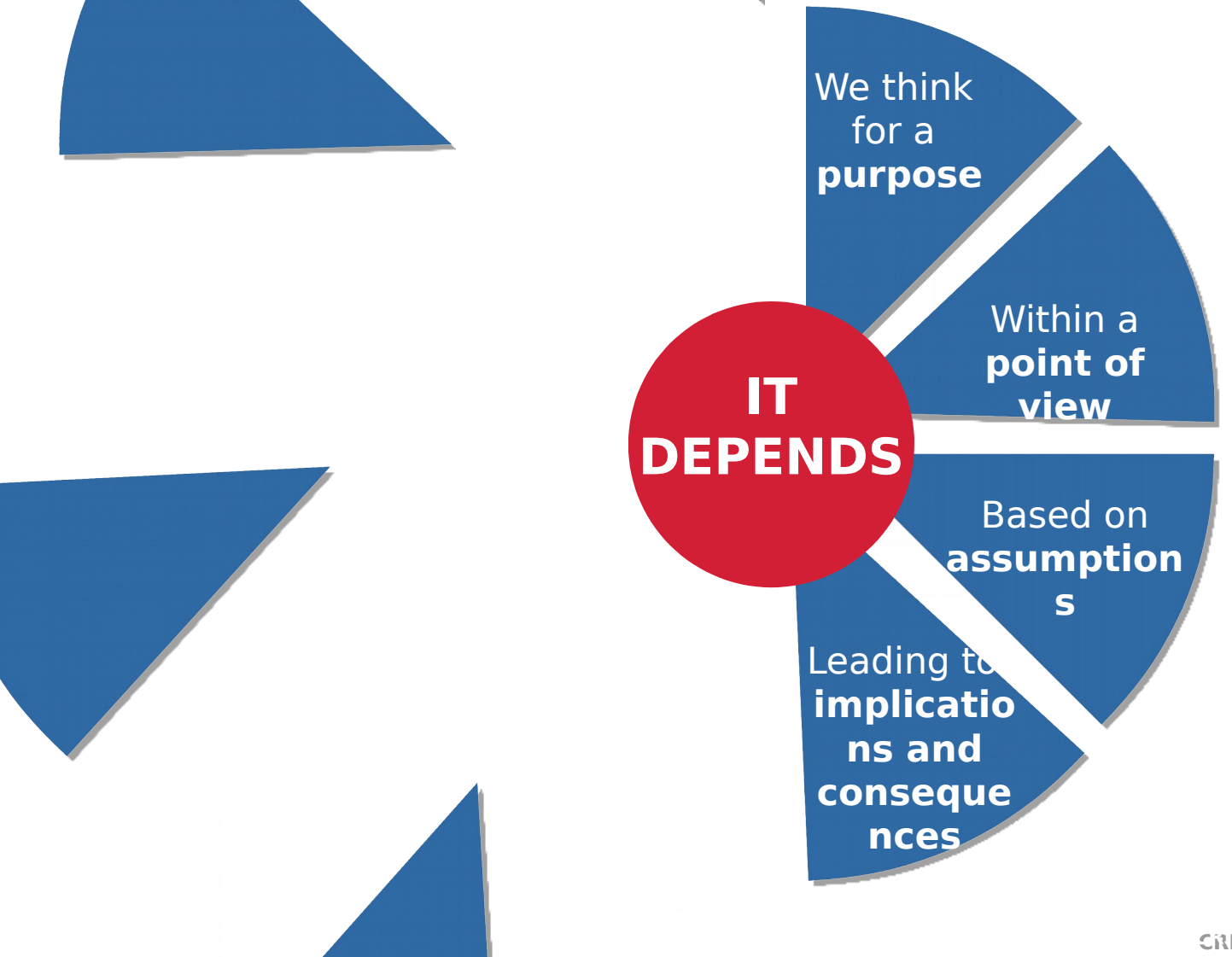
Improving Critical Thinking

Critical thinkers routinely apply intellectual standards to the elements of reasoning in order to develop intellectual traits.



The Foundation for Critical Thinking
www.criticalthinking.org

Elements of Re ning



Preventing Acquisition Malpractice

- **Transitioning from development to production—traditionally one of the most difficult challenges for any program**

- **"Acquisition Malpractice"**
  - **Optimistic predictions that no problems would occur in test flights**
  - **Lack of precision in modeling and simulation**
  - **Tendency to start production too early (e.g., before first test flight**
  - **Results in paying a higher price for being wrong**

Mr. Frank Kendall
The Optimal Program Structure
Defense News, Feb 2012

Critical Thinking Within Defense Acquisition

Defense Acquisition University

- **What is the *purpose* of the Defense Acquisition Workforce?**
- **What key *questions* should we be asking as acquisition professionals (that should drive our analysis)?**
- **What *information* should we use to determine how we should approach decisions?**
- **What other *viewpoints* should we consider when defining the problem or making a decision?**
- **What key ideas or *concepts* should guide our analysis?**
- **If we make a decision, what are the important *implications* for our warfighters?**
- **What should we *assume*, or take for granted, about what it means to be an acquisition professional**

Critical Thinking: Thinking Driven by Questions Instead of Answers

Defense Acquisition University

- **Questions** expand discussions and invite participation.
- **Answers** on the other hand, often signal a full stop in thought.
- More time should be spent on understanding and examining the question/problem.

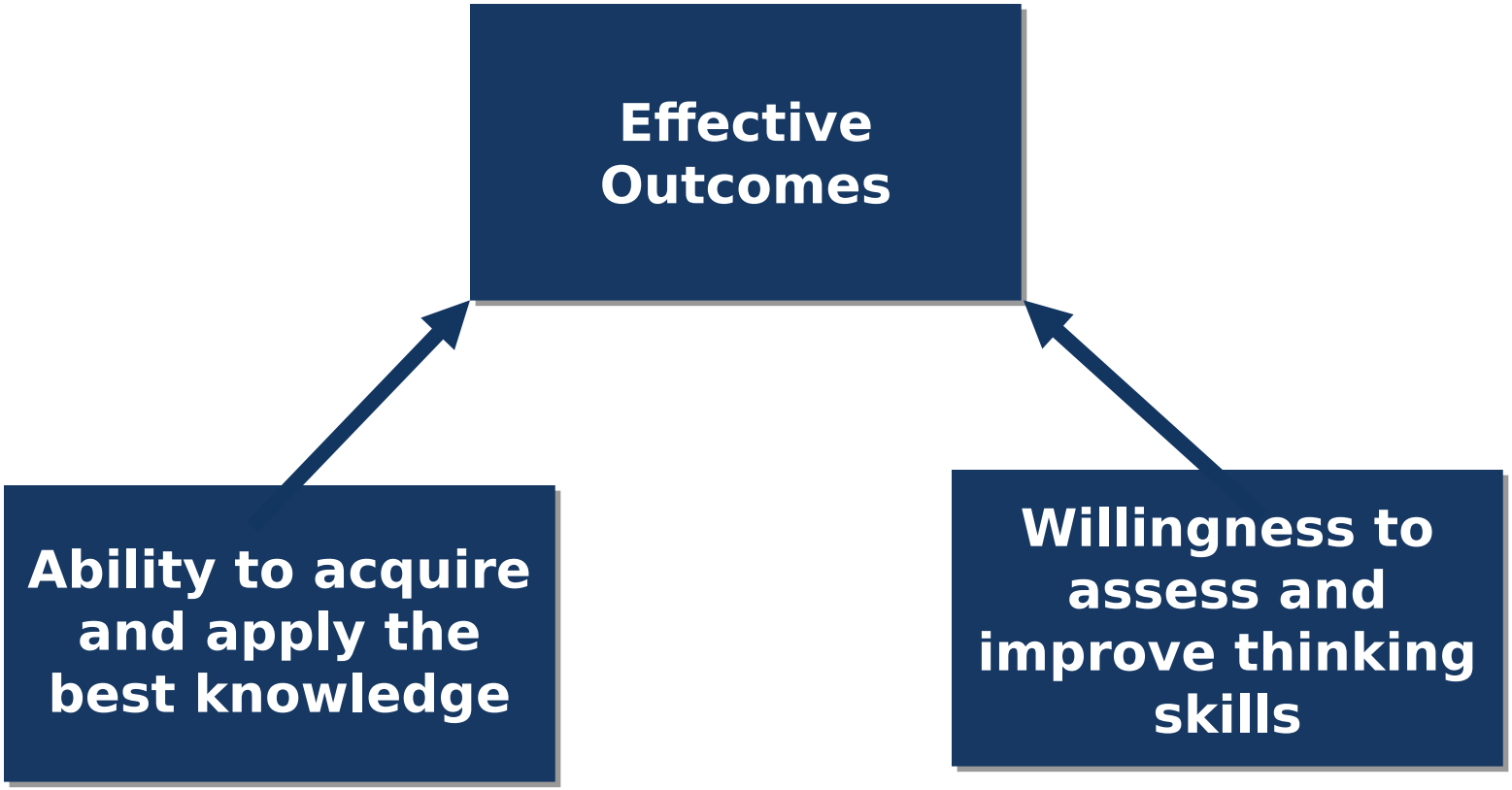
Answer: The next generation aircraft is…

Question: How do we maintain air dominance?

Creating a Culture of Critical Thinking

Defense Acquisition University

Knowledge is not enough to create wisdom


Effective Outcomes
Ability to acquire and apply the best knowledge
Willingness to assess and improve thinking skills

Critical Thinking for Effective Outcomes

Defense Acquisition University

- **Practitioners:**
  - **CAPT Jamie Engdahl**
    PM, Precision Strike Weapons
  - **COL Mike Sloane**
    PM, Soldier, Sensors & Lasers
  - **Lt Col Jeffrey Hamblin**
    Chief, F-15 FMS

Questions

Becaus **es and**
service
signifi **uses**
the cap **ect our**
countr

Backup

Critical Thinking Skills

Interpretation

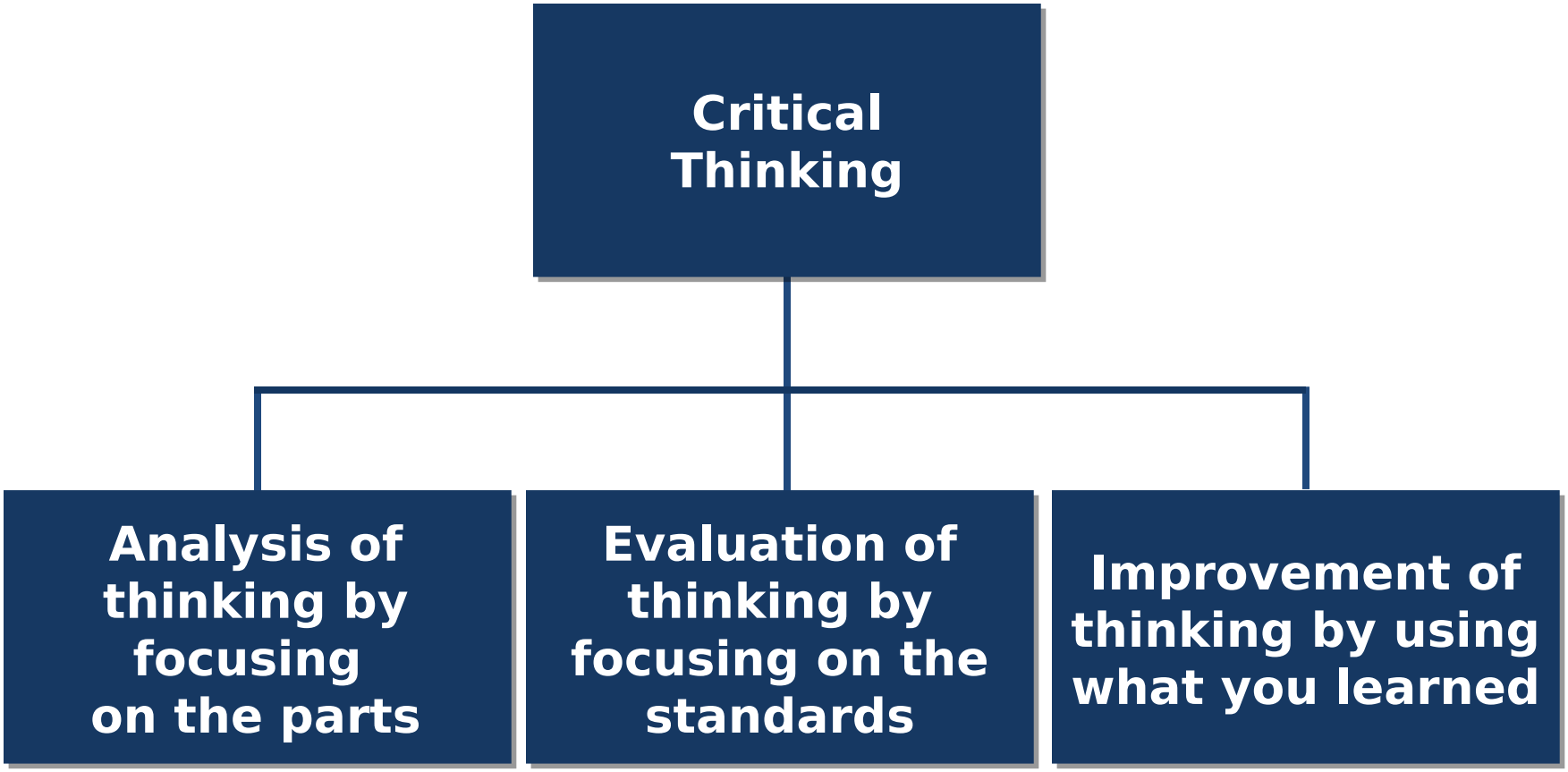
Analysis **Evalu**

Self-regulation

How Do You Assess Your Thinking?

Defense Acquisition University

Three Dimensions of Critical Thinking


Critical Thinking
Analysis of thinking by focusing on the parts
Evaluation of thinking by focusing on the standards
Improvement of thinking by using what you learned